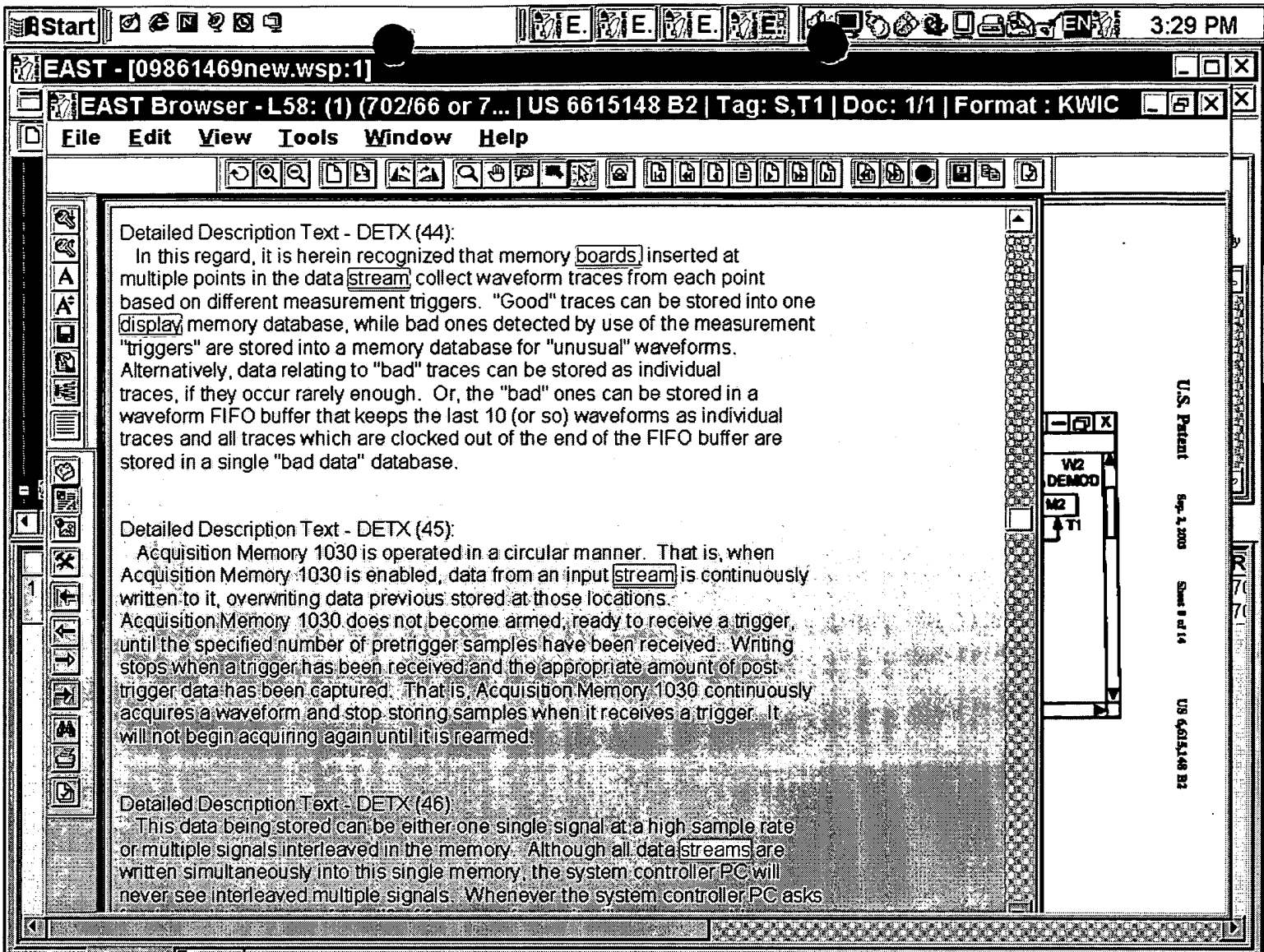
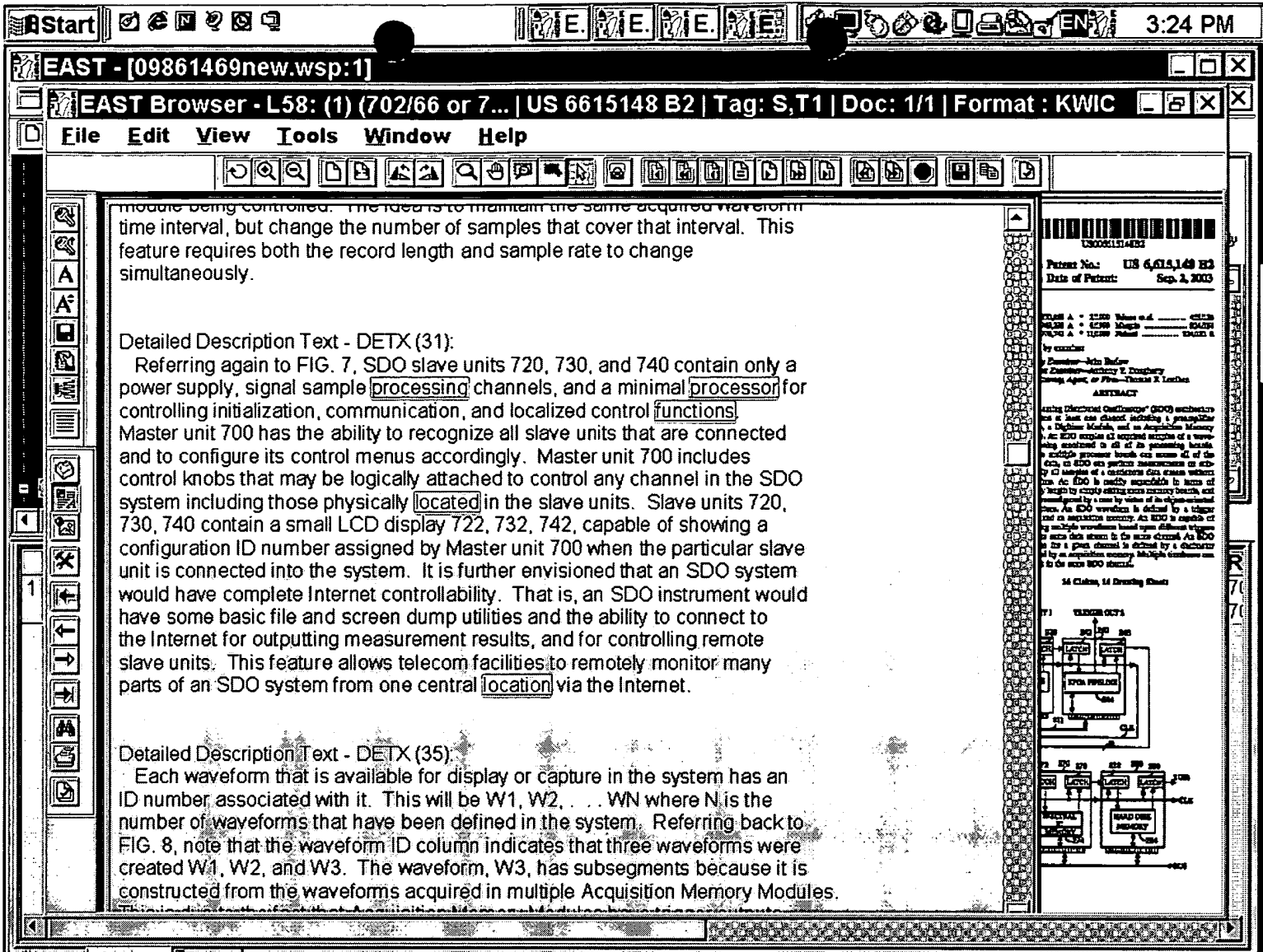


L Number	Hits	Search Text	DB	Time stamp
30	15	display\$4 near3(\$5processor or process\$4)near10(connect\$4 or coupl\$4) near10(\$5processor or process\$4) near3 waveform and (spectrum adj analyz\$4 or oscilloscope\$1 or net or network or web or web\$4 or internet or network or lan or wan)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:30
31	498	(\$5processor or process\$4)near10(connect\$4 or coupl\$4) near10(\$5processor or process\$4) near3 waveform	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:31
32	16	digital\$2 same oscilloscope and web near3(manag\$3 or processing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:31
33	7	display\$4 near10(\$5processor or process\$4)near15(connect\$4 or coupl\$4) near15(\$5processor or process\$4) near10 waveform and (spectrum adj analyz\$4 or oscilloscope\$1) and ( net or network or web or web\$4 or internet or network or lan or wan)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:41
34	329	(display\$4 near3(\$5processor or process\$4)near10(connect\$4 or coupl\$4) near10(\$5processor or process\$4) near3 waveform and (spectrum adj analyz\$4 or oscilloscope\$1 or net or network or web or web\$4 or internet or network or lan or wan)) or ((\$5processor or process\$4)near10(connect\$4 or coupl\$4) near10(\$5processor or process\$4) near3 waveform) or (digital\$2 same oscilloscope and web near3(manag\$3 or processing)) or (display\$4 near10(\$5processor or process\$4)near15(connect\$4 or coupl\$4) near15(\$5processor or process\$4) near10 waveform and (spectrum adj analyz\$4 or oscilloscope\$1) and ( net or network or web or web\$4 or internet or network or lan or wan))	USPAT	2004/07/24 13:36
35	1656	345/440	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:41
36	312	345/440.1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:41
37	413	345/763	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:41
38	278	345/769	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:41
39	302	345/771	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:41
40	161	717/105	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:42
41	293	717/109	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:42

42	173	717/113	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:42
43	124	717/115	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:42
44	1756	345/440.1 or 345/763 or 345/769 or 345/771 or 717/105 or 717/109 or 717/113 or 717/115	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:42
45	8	(345/440.1 or 345/763 or 345/769 or 345/771 or 717/105 or 717/109 or 717/113 or 717/115) and ((display\$4 near3(\$5processor or process\$4)near10(connect\$4 or coupl\$4) near10(\$5processor or process\$4) near3 waveform and (spectrum adj analyz\$4 or oscilloscope\$1 or net or network or web or web\$4 or internet or network or lan or wan)) or ((\$5processor or process\$4)near10(connect\$4 or coupl\$4) near10(\$5processor or process\$4) near3 waveform) or (digital\$2 same oscilloscope and web near3(manag\$3 or processing)) or (display\$4 near10(\$5processor or process\$4)near15(connect\$4 or coupl\$4) near15(\$5processor or process\$4) near10 waveform and (spectrum adj analyz\$4 or oscilloscope\$1) and ( net or network or web or web\$4 or internet or network or lan or wan)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:43
46	18	(324/121r or (345/440.1 or 345/763 or 345/769 or 345/771 or 717/105 or 717/109 or 717/113 or 717/115)) and ((display\$4 near3(\$5processor or process\$4)near10(connect\$4 or coupl\$4) near10(\$5processor or process\$4) near3 waveform and (spectrum adj analyz\$4 or oscilloscope\$1 or net or network or web or web\$4 or internet or network or lan or wan)) or ((\$5processor or process\$4)near10(connect\$4 or coupl\$4) near10(\$5processor or process\$4) near3 waveform) or (digital\$2 same oscilloscope and web near3(manag\$3 or processing)) or (display\$4 near10(\$5processor or process\$4)near15(connect\$4 or coupl\$4) near15(\$5processor or process\$4) near10 waveform and (spectrum adj analyz\$4 or oscilloscope\$1) and ( net or network or web or web\$4 or internet or network or lan or wan)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2004/07/24 13:45





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module being controlled. The idea is to maintain the same acquired waveform time interval, but change the number of samples that cover that interval. This feature requires both the record length and sample rate to change simultaneously.

Detailed Description Text - DETX (31):

Referring again to FIG. 7, SDO slave units 720, 730, and 740 contain only a power supply, signal sample processing channels, and a minimal processor for controlling initialization, communication, and localized control functions. Master unit 700 has the ability to recognize all slave units that are connected and to configure its control menus accordingly. Master unit 700 includes control knobs that may be logically attached to control any channel in the SDO system including those physically located in the slave units. Slave units 720, 730, 740 contain a small LCD display 722, 732, 742, capable of showing a configuration ID number assigned by Master unit 700 when the particular slave unit is connected into the system. It is further envisioned that an SDO system would have complete Internet controllability. That is, an SDO instrument would have some basic file and screen dump utilities and the ability to connect to the Internet for outputting measurement results, and for controlling remote slave units. This feature allows telecom facilities to remotely monitor many parts of an SDO system from one central location via the Internet.

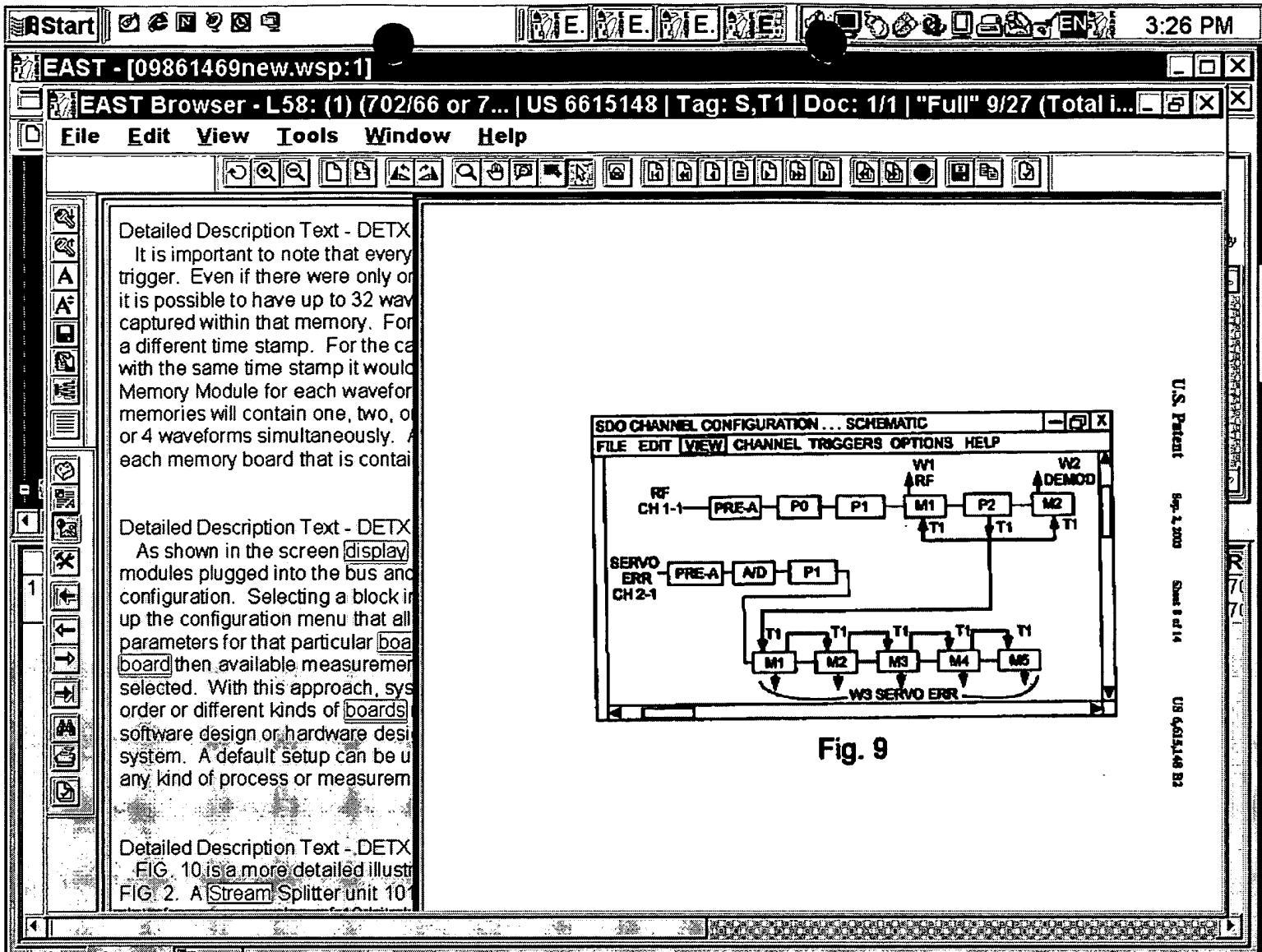
Detailed Description Text - DETX (35):

Each waveform that is available for display or capture in the system has an ID number associated with it. This will be W1, W2, . . . WN where N is the number of waveforms that have been defined in the system. Referring back to FIG. 8, note that the waveform ID column indicates that three waveforms were created W1, W2, and W3. The waveform, W3, has subsegments because it is constructed from the waveforms acquired in multiple Acquisition Memory Modules.

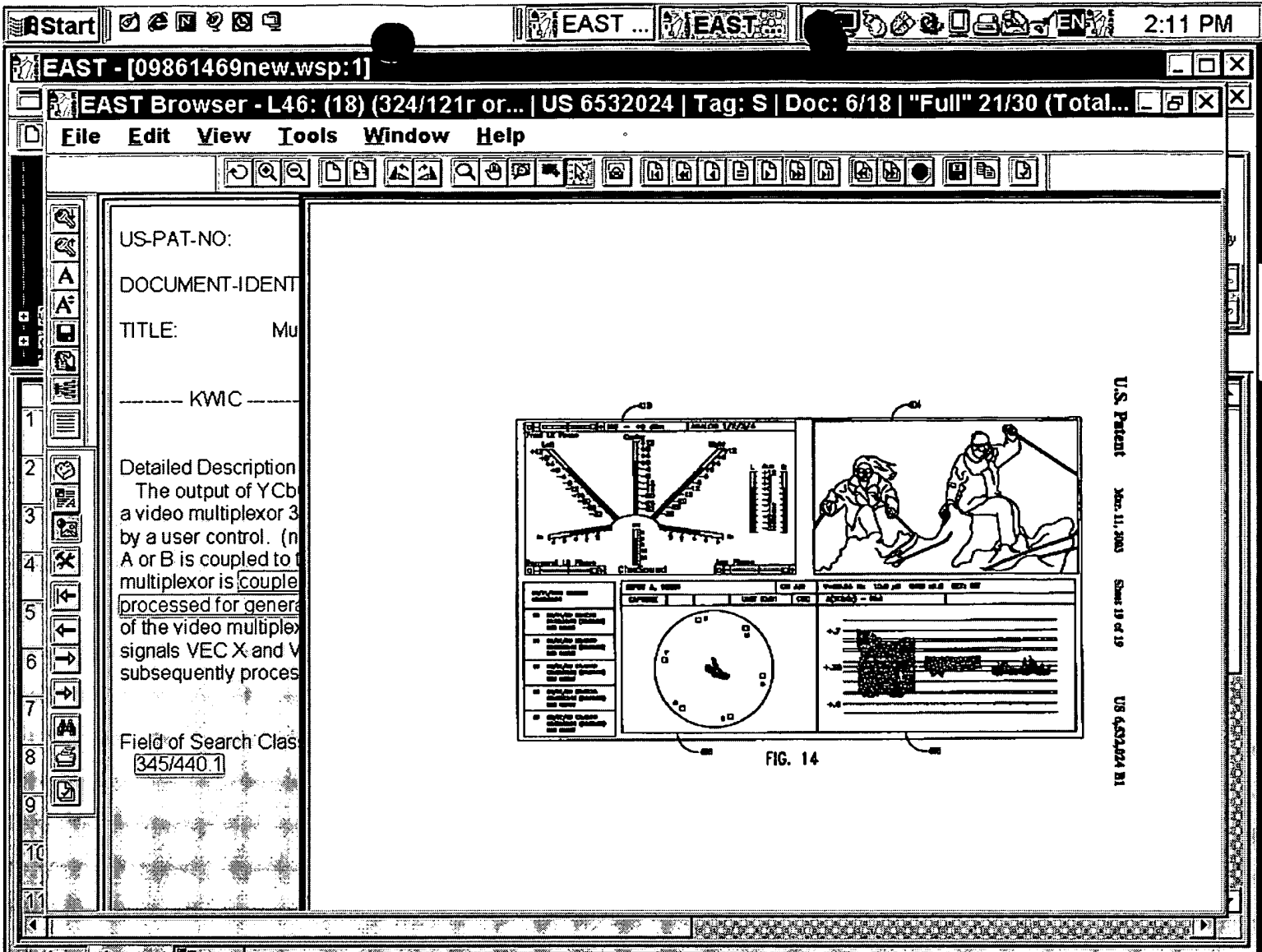
US 6,615,148 B2  
Date of Patent: Sep. 2, 2003

FIG. 7 is a block diagram of a Slave Unit 700. The diagram shows a power supply (PS) connected to a signal sample processing channel (SSPC) and a minimal processor (MP). The SSPC is connected to an input (IN) and an output (OUT). The MP is connected to the SSPC and a control knob (CK). The CK is connected to a control line (CL) which is connected to the IN and OUT. The MP is also connected to a configuration ID number (CID) which is connected to the IN and OUT. The MP is further connected to a small LCD display (LCD) which is connected to the IN and OUT. The MP is also connected to a control line (CL) which is connected to the IN and OUT. The MP is further connected to a configuration ID number (CID) which is connected to the IN and OUT. The MP is also connected to a control line (CL) which is connected to the IN and OUT. The MP is further connected to a configuration ID number (CID) which is connected to the IN and OUT.

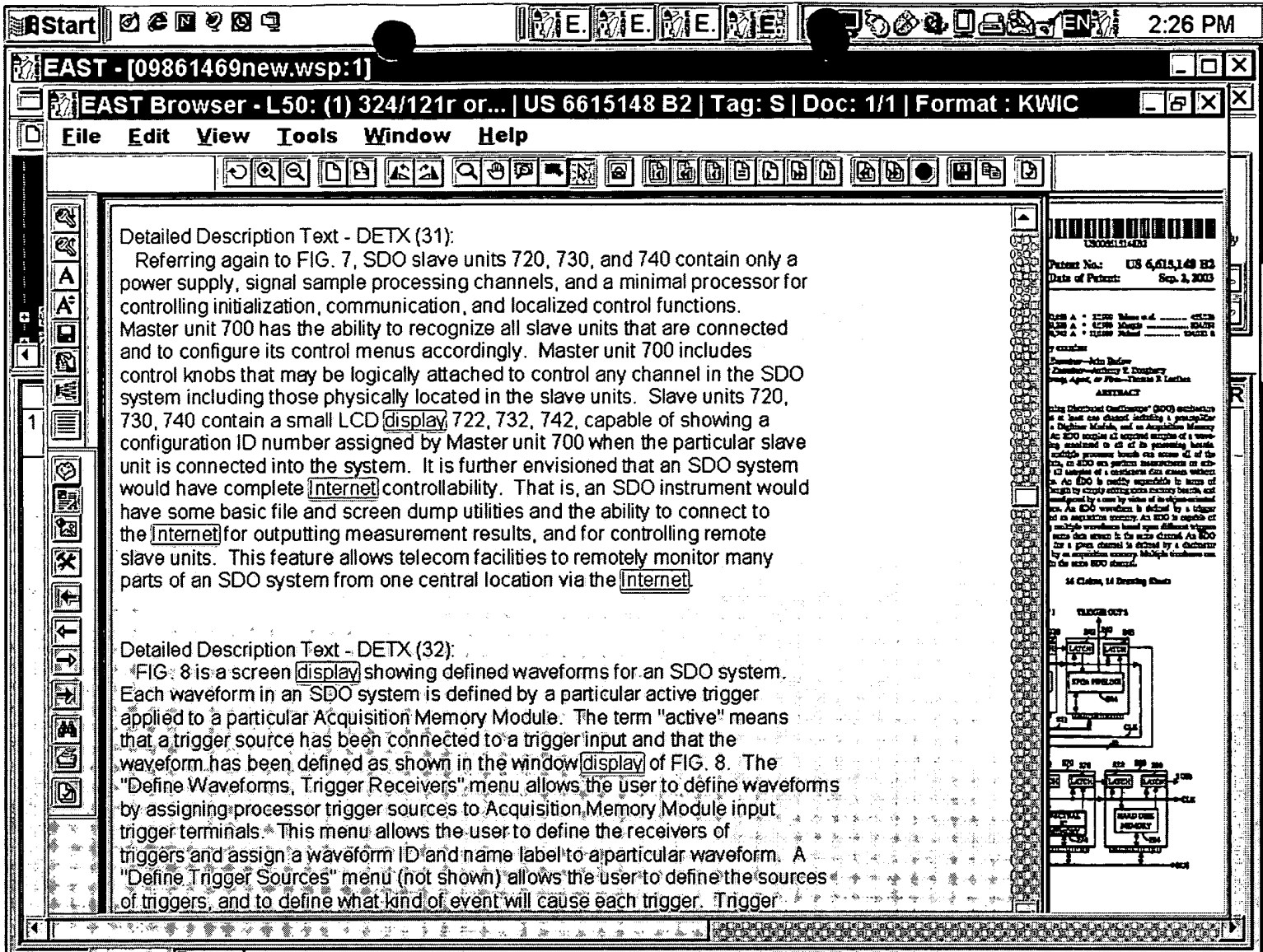
FIG. 8 is a block diagram of a Master Unit 700. The diagram shows a power supply (PS) connected to a signal sample processing channel (SSPC) and a minimal processor (MP). The SSPC is connected to an input (IN) and an output (OUT). The MP is connected to the SSPC and a control knob (CK). The CK is connected to a control line (CL) which is connected to the IN and OUT. The MP is also connected to a configuration ID number (CID) which is connected to the IN and OUT. The MP is further connected to a small LCD display (LCD) which is connected to the IN and OUT. The MP is also connected to a control line (CL) which is connected to the IN and OUT. The MP is further connected to a configuration ID number (CID) which is connected to the IN and OUT. The MP is also connected to a control line (CL) which is connected to the IN and OUT. The MP is further connected to a configuration ID number (CID) which is connected to the IN and OUT.

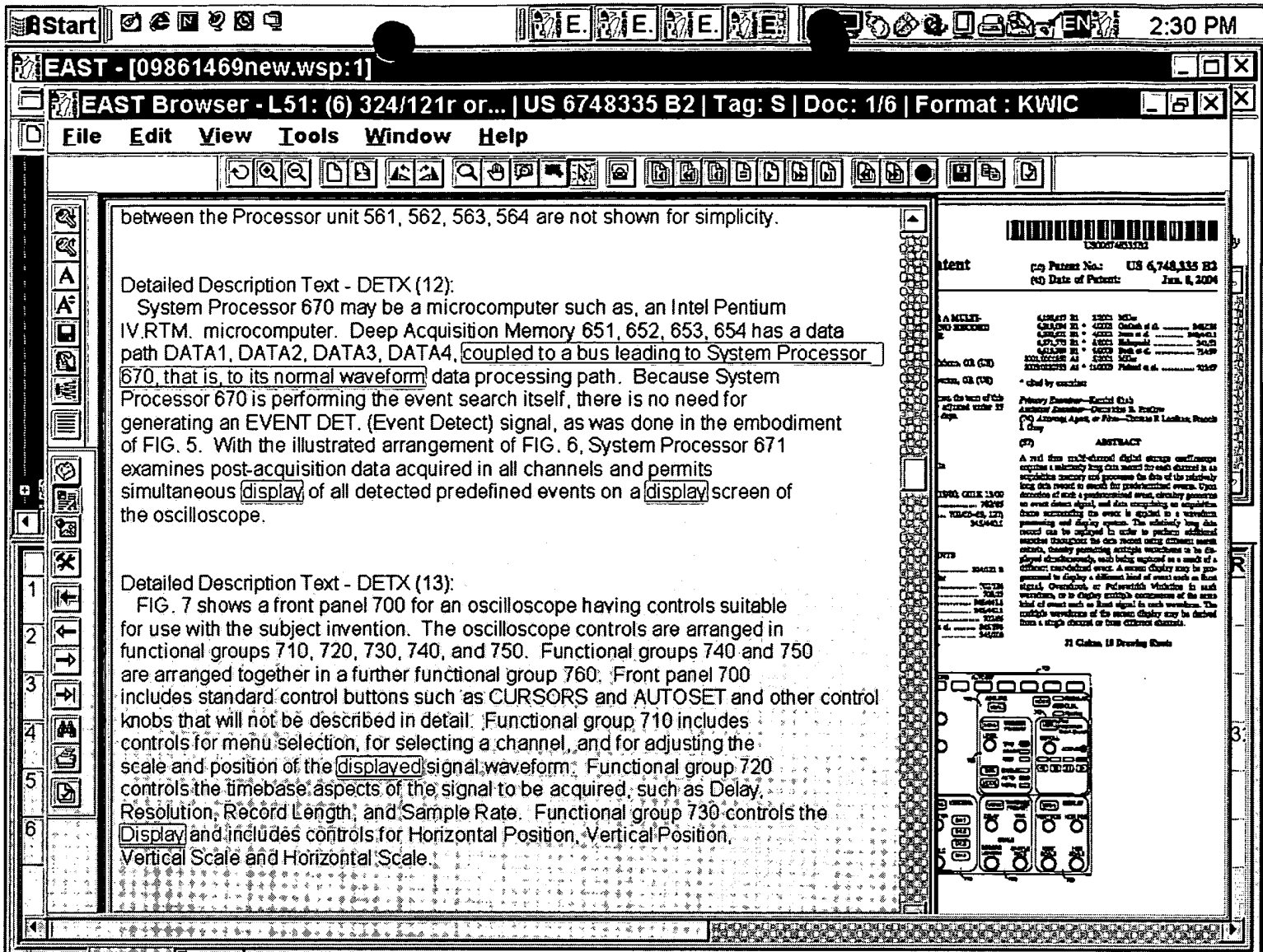


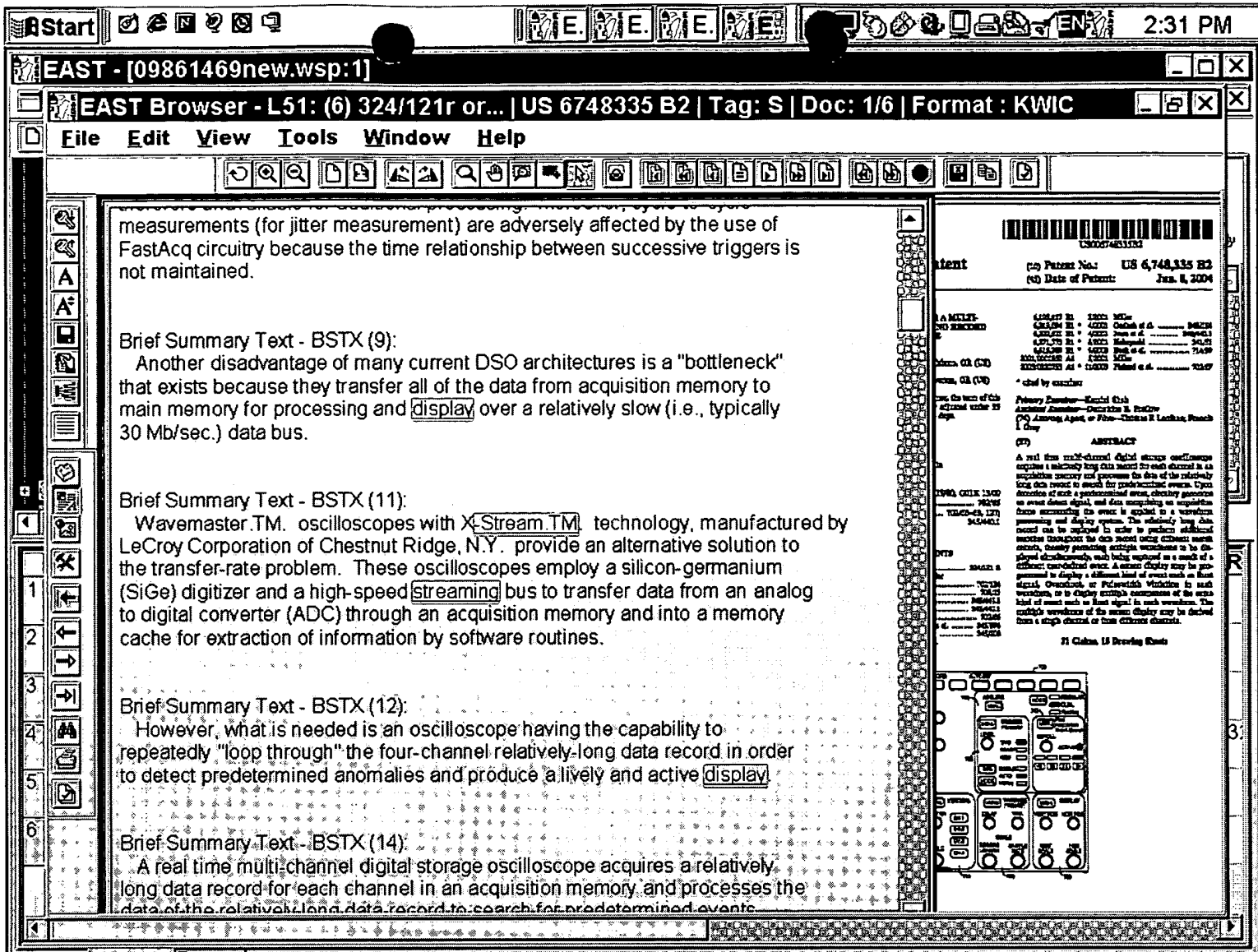












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EAST - [09861469new.wsp:1]

EAST Browser - L51: (6) 324/121r or... | US 6748335 B2 | Tag: S | Doc: 1/6 | Format : KWIC

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measurements (for jitter measurement) are adversely affected by the use of FastAcq circuitry because the time relationship between successive triggers is not maintained.

Brief Summary Text - BSTX (9):  
Another disadvantage of many current DSO architectures is a "bottleneck" that exists because they transfer all of the data from acquisition memory to main memory for processing and display over a relatively slow (i.e., typically 30 Mb/sec.) data bus.

Brief Summary Text - BSTX (11):  
Wavemaster.TM. oscilloscopes with X-Stream.TM. technology, manufactured by LeCroy Corporation of Chestnut Ridge, N.Y. provide an alternative solution to the transfer-rate problem. These oscilloscopes employ a silicon-germanium (SiGe) digitizer and a high-speed streaming bus to transfer data from an analog to digital converter (ADC) through an acquisition memory and into a memory cache for extraction of information by software routines.

Brief Summary Text - BSTX (12):  
However, what is needed is an oscilloscope having the capability to repeatedly "loop through" the four-channel relatively-long data record in order to detect predetermined anomalies and produce a lively and active display.

Brief Summary Text - BSTX (14):  
A real time multi-channel digital storage oscilloscope acquires a relatively long data record for each channel in an acquisition memory and processes the data of the relatively long data record to search for predetermined events.

Patent

US Patent No.: US 6,748,335 B2  
(4) Date of Patent: Jan. 8, 2004

ABSTRACT

A real time multi-channel digital storage oscilloscope acquires a relatively long data record for each channel in an acquisition memory and processes the data of the relatively long data record to search for predetermined events. Upon detection of such a predetermined event, circuitry generates an event channel signal, and data sampling or acquisition time surrounding the event is applied to a waveform processing and display system. The relatively long data record may be retained in order to produce additional searches throughout the data record using different search criteria. Circuitry generating multiple waveforms to be displayed simultaneously, each being captured as a result of a different predetermined event. A screen display may be generated to display a different kind of event such as burst signals, overshoots, or predetermined violations in each waveform, or to display multiple waveforms of the same kind of event such as burst signals in each waveform. The multiple waveforms of the screen display may be derived from a single channel or from different channels.

71 Claims, 13 Drawing Sheets

